

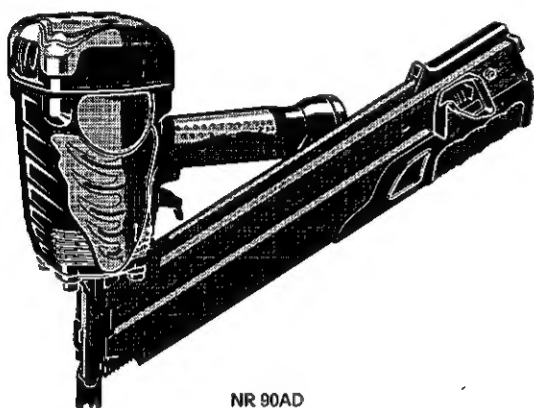
# HITACHI

## Instruction and safety manual Manuel d'instructions et de sécurité Instrucciones y manual de seguridad

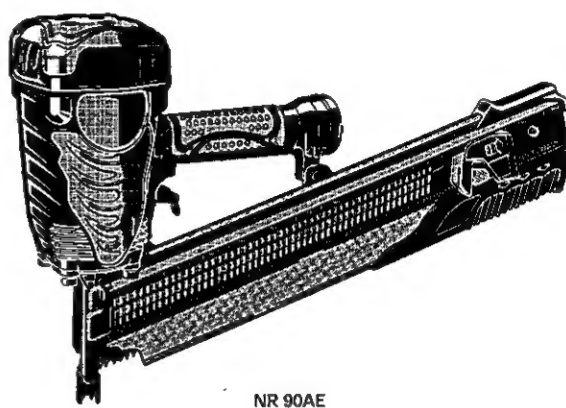
Model  
Modèle  
Modelo

**NR 90AD NR 90AE**

Nailer  
Cloueur  
Clavador



NR 90AD



NR 90AE

### **⚠ DANGER**

**Improper use of this Nailer can result in death or serious injury!**  
**This Manual contains important information about product safety.**  
**Read and understand this Manual before operating the Nailer.**  
**Never allow anyone who has not reviewed this manual.**

### **⚠ DANGER**

**Une utilisation incorrecte et sans respecter la sécurité de ce cloueur risque d'entraîner la mort ou des blessures graves !**  
**Ce manuel renferme des instructions importantes sur la sécurité de l'outil.**  
**Lire et bien assimiler ce manuel avant d'utiliser le cloueur.**  
**Ne jamais laisser les personnes n'ayant pas étudié le manuel utiliser l'outil.**

### **⚠ PELIGRO**

**¡La utilización inadecuada e insegura de este clavador puede resultar en lesiones serias o en la muerte!**  
**Este manual contiene información importante sobre la seguridad del producto.**  
**Lea y entienda este manual antes de utilizar el clavador.**  
**No deje manejar esta herramienta a nadie que no haya leído este manual.**

**Hitachi Koki**

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## **IMPORTANT INFORMATION**



Read and understand tool labels and all of the operating instructions, safety precautions and warnings in this manual before operating or maintaining this nailer. Failure to follow warnings could result in **DEATH** or **SERIOUS INJURY**.

Most accidents that result from the operation and maintenance of Nailers are caused by the failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing a potentially hazardous situation before it occurs, and by observing appropriate safety procedures.

Basic safety precautions are outlined in the "SAFETY" section of this Manual and in the sections which contain the operation and maintenance instructions.

Hazards that must be avoided to prevent bodily injury or machine damage are identified by **DANGERS** and **WARNINGS** on the Nailer and in this Manual.

Never use this Nailer for applications other than those specified in this Manual.

## **DEFINITIONS OF SIGNAL WORDS**

**DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, or may cause machine damage.

**NOTE** emphasizes essential information.

## **EXPLANATION OF THE NAILING ACTION OF THE HITACHI NAILER**

- **SINGLE ACTUATION MECHANISM (SINGLE SEQUENTIAL ACTUATION MECHANISM):**  
 First, press the push lever against the workpiece; next, pull the trigger to drive the nail.  
 First, pull the trigger; next, press the push lever against the workpiece to drive the nail.  
 After nailing once, nailing will not be possible again until the trigger is released and pressed again.
- **CONTACT ACTUATION MECHANISM:**  
 First, press the push lever against the workpiece; next, pull the trigger to drive the nail.  
 First, pull the trigger; next, press the push lever against the workpiece to drive the nail.  
 If the trigger is held back, a nail will be driven each time the push lever is pressed against the workpiece.
- **FULL SEQUENTIAL ACTUATION MECHANISM:**  
 First, press the push lever against the workpiece; next, pull the trigger to drive the nail. Follow the same sequence to continue driving nails.

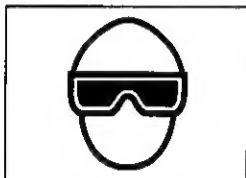
# SAFETY

## IMPORTANT SAFETY INSTRUCTIONS FOR USING NAILERS

### READ ALL INSTRUCTIONS

#### **⚠ DANGER**

##### **1. OPERATORS AND OTHERS IN WORK AREA MUST WEAR SAFETY GLASSES WITH SIDE SHIELDS.**



When operating the Nailer, always wear safety glasses with side shields, and make sure others in work area wear safety glasses, too.  
Safety glasses must conform to the requirements of American National Standards Institute, ANSI Z87.1 and provide protection against flying particles both from the front and side.

The employer must enforce the use of safety glasses by the Nailer operator and others in work area.

##### **2. NEVER USE OXYGEN OR OTHER BOTTLED GASSES. EXPLOSION MAY OCCUR.**



Never use oxygen, combustible gases or any other bottled gases as a power source for the Nailer. Use of the above gases is dangerous, as the Nailer will explode.  
Use only clean, dry, regulated compressed air.

#### **⚠ WARNING**

##### **3. NEVER POINT TOOL AT YOURSELF OR OTHERS IN WORK AREA.**



Always assume the Nailer contains fasteners.  
Never point the Nailer at yourself toward yourself or others, whether it contains fasteners or not. If fasteners are mistakenly driven, it can lead to severe injuries.  
Never engage in horseplay with the Nailer.  
Respect the Nailer as a working implement.

##### **4. KEEP FINGERS AWAY FROM TRIGGER WHEN NOT DRIVING FASTENERS TO AVOID ACCIDENTAL FIRING.**

Never carry the Nailer with finger on trigger since you could drive a fastener unintentionally and injure yourself or someone else.  
Always carry the Nailer by the handle only.

##### **5. CHOICE OF TRIGGERING METHOD IS IMPORTANT.**

Read and understand section titled "METHODS OF OPERATION". (pages 13 – 14)

##### **6. DO NOT EXCEED 120 psi. (8.3 bar 8.5 kgf/cm<sup>2</sup>)**



Do not exceed maximum recommended air pressure 120 psi (8.3 bar 8.5 kgf/cm<sup>2</sup>).

Never connect the Nailer to pressure which potentially exceeds 200 psi (13.7 bar 14 kgf/cm<sup>2</sup>) as the Nailer can burst.

##### **7. ALWAYS WEAR EAR AND HEAD PROTECTION.**

Always wear ear protection to protect your ears from loud noise.  
Always wear head protection to protect your head from flying objects.

# SAFETY — Continued

## ⚠ WARNING

### 8. STORE NAILER PROPERLY.

When not in use, the Nailer should be stored in a dry place. Keep out of reach of children. Lock the storage area.

### 9. KEEP WORK AREA CLEAN.

Cluttered areas invite injuries. Clear all work areas of unnecessary tools, debris, furniture, etc.

### 10. NEVER USE IN PRESENCE OF FLAMMABLE LIQUIDS OR GASES.

The Nailer produces sparks during operation. Never use the Nailer in sites containing lacquer, paint, benzine, thinner, gasoline, gases, adhesive agents, and other materials which are combustible or explosive.

### 11. KEEP VISITORS AWAY.

Do not let visitors handle the Nailer. All visitors should be kept safely away from work area.

### 12. DRESS PROPERLY.

Do not wear loose clothing or jewelry as they can be caught in moving parts. Rubber gloves and nonskid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.

### 13. NEVER USE NON RELIEVING COUPLER ON NAILER.

If a non relieving coupler is used on the Nailer, the Nailer can remain charged with air after disconnecting and thus will be able to drive a fastener even after disconnecting. The Nailer and air hose must have a hose coupling such that all pressure is removed from the Nailer when the coupling joint is disconnected.

### 14. CHECK PUSH LEVER BEFORE USE.

Make sure the push lever operates properly. (The push lever may be called "Safety".) Never use the Nailer unless the push lever is operating properly, otherwise the Nailer could drive a fastener unexpectedly. Do not tamper with or remove the push lever, otherwise the push lever becomes inoperable.

### 15. KEEP ALL SCREWS AND COVERS TIGHTLY IN PLACE.

Keep all screws and covers tightly mounted. Check their condition periodically. Never use the Nailer if parts are missing or damaged.

### 16. DO NOT LOAD FASTENERS WITH TRIGGER OR PUSH LEVER DEPRESSED.

When loading fasteners into the Nailer or when connecting the air hose,

- 1) do not depress the trigger;
- 2) do not depress the push lever; and
- 3) keep the Nailer pointed downward.

### 17. KEEP HANDS AND FEET AWAY FROM FIRING HEAD DURING USE.

Never place your hands or feet closer than 8 inches (200 mm) from the firing head.

A serious injury can result if the fasteners are deflected by the workpiece, or are driven away from the point of entry.

### 18. PLACE NAILER PROPERLY ON WORKPIECE.

Do not drive fasteners on top of other fasteners or with the Nailer at too steep of an angle; the fasteners can ricochet and hurt someone.

### 19. BEFORE STARTING WORK, CHECK THE NAILING OPERATION SWITCHING DEVICE.

This Hitachi nailer includes a nailing operation switching device.

Before starting work, check the setting of the operation switching device.

If the switching device is not set properly, the nailer will not operate correctly.

### 20. BE CAREFUL OF DOUBLE FIRE DUE TO RECOIL.

If the push lever is unintentionally allowed to re-contact the workpiece following recoil, an unwanted fastener will be driven.

In order to avoid this undesirable double fire,

- Intermittent operation (Trigger firing)
  - 1) Set the switching device to SINGLE ACTUATION MECHANISM.
  - 2) Pull the trigger rapidly and firmly.
- Continuous operation (Push lever firing)
  - 1) Do not press the nailer against the wood with excessive force.
  - 2) Separate the nailer from the wood as it recoils after nailing.

### 21. DO NOT DRIVE FASTENERS INTO THIN BOARDS OR NEAR CORNERS AND EDGES OF WORKPIECE.

The fasteners can be driven through or away from the workpiece and hit someone.

### 22. NEVER DRIVE FASTENERS FROM BOTH SIDES OF A WALL AT THE SAME TIME.

The fasteners can be driven into and through the wall and hit a person on the opposite side.

### 23. CHECK FOR LIVE WIRES.

Avoid the risk of severe electrical shock by checking for live electrical wires that may be hidden by walls, floors or ceilings. Turn off the breaker switch to ensure there are no live wires.

### 24. NEVER CARRY NAILER BY HOSE.

# SAFETY — Continued

## ⚠ WARNING

### 25. DO NOT OVERREACH.

Keep proper footing and balance at all times.

### 26. NEVER USE NAILER WHICH IS DEFECTIVE OR OPERATING ABNORMALLY.

If the Nailer appears to be operating unusually, making strange noises, or otherwise appears defective, stop using it immediately and arrange for repairs by a Hitachi authorized service center.

### 27. DO NOT DISCONNECT AIR HOSE FROM NAILER WITH FINGER ON TRIGGER.

The Nailer can fire when re-connected to an air supply.

### 28. DISCONNECT AIR HOSE FROM NAILER WHEN:

- 1) doing maintenance and inspection;
- 2) clearing a jam;
- 3) it is not in use;
- 4) leaving work area;
- 5) moving it to another location; and
- 6) handing it to another person.

Never attempt to clear a jam or repair the Nailer unless you have disconnected air hose from the Nailer and removed all remaining fasteners from the Nailer.

The Nailer should never be left unattended since people who are not familiar with the Nailer might handle it and injure themselves.

### 29. STAY ALERT.

Watch what you are doing. Use common sense. Do not operate the Nailer when you are tired. The Nailer should never be used by you if you are under the influence of alcohol, drugs or medication that makes you drowsy.

### 30. HANDLE NAILER CORRECTLY.

Operate the Nailer according to this Manual. Never allow the Nailer to be operated by children, individuals unfamiliar with its operation or unauthorized personnel.

### 31. NEVER USE NAILER FOR APPLICATIONS OTHER THAN THOSE SPECIFIED IN THIS MANUAL.

### 32. HANDLE NAILER CAREFULLY.

Because of high air pressure in the Nailer, cracks in the surface are dangerous.

To avoid this, do not drop the Nailer or strike the Nailer against hard surfaces; and do not scratch or engrave signs on the Nailer. Handle the Nailer carefully.

### 33. MAINTAIN NAILER WITH CARE.

Keep the Nailer clean and lubricated for better and safer performance.

### 34. USE ONLY PARTS, ACCESSORIES OR FASTENERS SUPPLIED OR RECOMMENDED BY HITACHI.

Unauthorized parts, accessories, or fasteners may void your warranty and can lead to malfunction and resulting injuries.

Only service personnel trained by Hitachi, distributor or employer shall repair the Nailer.

### 35. NEVER MODIFY OR ALTER A NAILER.

Doing so may cause it to malfunction and personal injuries may result.

## EMPLOYER'S RESPONSIBILITIES

1. Ensure that this MANUAL is available to operators and personnel performing maintenance.
2. Ensure that Nailers are used only when operators and others in work area are wearing EYE PROTECTOR.
3. Enforce the use of EYE PROTECTOR by operators and others in work area.
4. Keep Nailers in safe working order.
5. Maintain Nailers properly.
6. Ensure that Nailers which require repair are not further used before repair.

**SAVE THIS MANUAL AND  
KEEP IT AVAILABLE FOR OTHERS!**



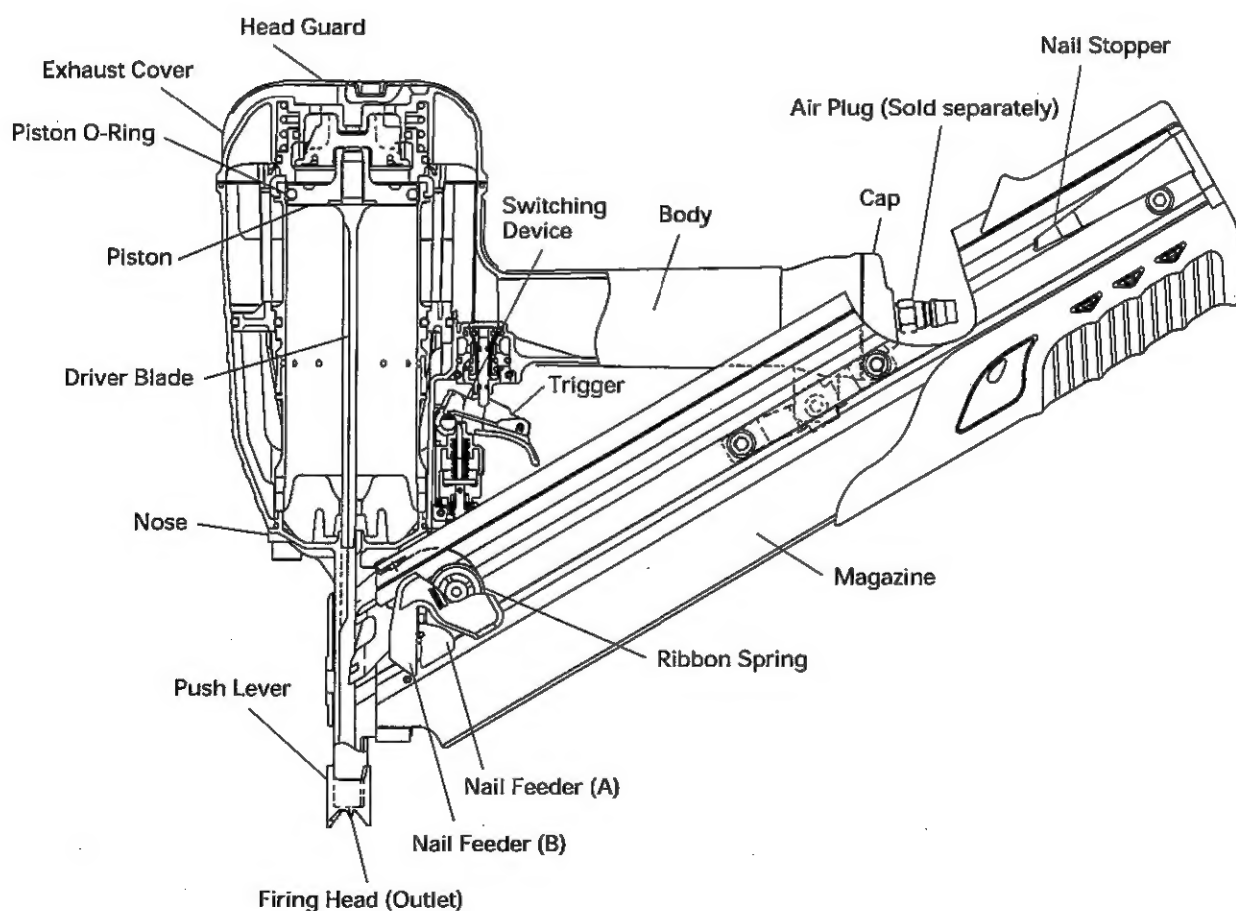
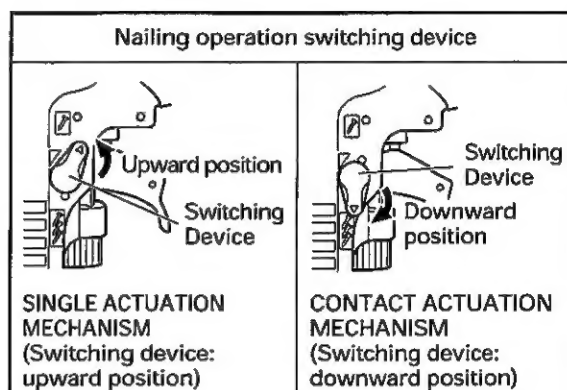
# OPERATION

## NOTE:

The information contained in this Manual is designed to assist you in the safe operation of the Nailer.

Some illustrations in this Manual may show details or attachments that differ from those on your own Nailer.

## NAME OF PARTS



## SPECIFICATIONS

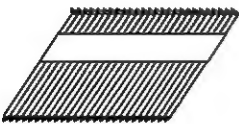
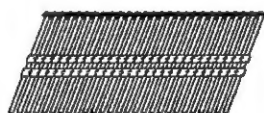
| Model                                 | NR90AD                                                                                                            | NR90AE                                                       |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Operating pressure                    | 70 – 120 psi (4.9 – 8.3 bar) 5 – 8.5 kgf/cm <sup>2</sup>                                                          |                                                              |
| Dimensions<br>Length × Height × Width | 18-3/16" × 12-11/16" × 4-15/16"<br>(462 mm × 322 mm × 125 mm)                                                     | 20-3/4" × 12-11/16" × 4-15/16"<br>(527 mm × 322 mm × 125 mm) |
| Weight                                | 7.0 lbs (3.2 kg)                                                                                                  | 7.5 lbs (3.4 kg)                                             |
| Nail capacity                         | 50 – 74 nails (2 strips)                                                                                          | 64 – 70 nails (2 strips)                                     |
| Air consumption                       | .088 ft <sup>3</sup> /cycle at 100 psi<br>(2.5 ltr/cycle at 6.9 bar)<br>(2.5 ltr/cycle at 7 kgf/cm <sup>2</sup> ) |                                                              |
| Air inlet                             | 3/8 NPT Thread                                                                                                    |                                                              |

## NAIL SELECTION

### ⚠ WARNING

- Be sure to use only the genuine HITACHI nails for the NR90AD. The use of any other nails can result in tool malfunction and/or nail breakdown, leading to serious injuries.

Only nails shown in the Table below can be driven with this Nailer.

| NR90AD                                                                              |                   |                   | NR90AE                                                                               |                   |                   |
|-------------------------------------------------------------------------------------|-------------------|-------------------|--------------------------------------------------------------------------------------|-------------------|-------------------|
| Paper collated strip nails<br>Clipped-head nails                                    | Min.              | Max.              | Plastic-collated strip nails<br>Full-head nails                                      | Min.              | Max.              |
|  | .266"<br>(6.8 mm) | .303"<br>(7.7 mm) |  | .286"<br>(7 mm)   | .3"<br>(7.6 mm)   |
|                                                                                     | 2" (50 mm)        | 3-1/2" (90 mm)    |                                                                                      | 2" (50 mm)        | 3-1/2" (90 mm)    |
|                                                                                     | .113"<br>(2.9 mm) | .148"<br>(3.8 mm) |                                                                                      | .113"<br>(2.9 mm) | .148"<br>(3.8 mm) |

## ACCESSORIES

### ⚠ DANGER

- Accessories other than those shown below can lead to malfunction and resulting injuries.

### STANDARD ACCESSORIES



- ① Safety glasses ..... 1



## OPTIONAL ACCESSORIES

- Pneumatic Tool Lubricant ... sold separately
  - .8 oz. (25 cc) oil feeder (Code No. 877153)
  - 4 oz. (120 cc) oil feeder (Code No. 874042)
  - 1 quart (1 ltr) can (Code No. 876212)

**NOTE:** Accessories are subject to change without any obligation on the part of HITACHI.

## APPLICATIONS

- Floor and wall framing.
- Truss build-up, Window build-up.
- Subflooring and roof decking.
- Wall sheathing.
- Mobile home and modular housing construction.

## BEFORE OPERATION

Read section titled "SAFETY" (pages 4 – 6).

Make sure of the followings before operation.

## WORKING ENVIRONMENT

### ⚠ WARNING

- No flammable gas, liquid or other flammable objects at worksite.
- Clear the area of children or unauthorized personnel.

## AIR SUPPLY

### ⚠ DANGER



- NEVER use oxygen or other bottled gases. Explosion may occur.

### ⚠ WARNING

- Never connect Nailer to pressure which potentially exceeds 200 psi (13.7 bars 14 kgf/cm<sup>2</sup>).
- Never use non relieving coupler on Nailer.

### 1. Power source

- Use only clean, dry, regulated compressed air as a power source for this Nailer.
- Air compressors used to supply compressed air to this Nailer must comply with the requirements of the latest version of ANSI Standard B 19.3 "Safety Standard For Compressors For Process Industries".

- Moisture or oil in the air compressor may accelerate wear and corrosion in the Nailer. Drain daily.

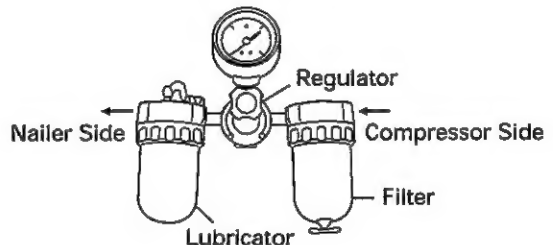
### 2. Filter-Regulator-Lubricator

- Use a regulator with a pressure range of 0 – 120 psi (0 – 8.3 bar 0 – 8.5 kgf/cm<sup>2</sup>).
- Filter-regulator-lubricator units supply an optimum condition for the Nailer and extend the Nailer life. These units should always be used.

**Filter** ..... The filter removes moisture and dirt mixed in compressed air. Drain daily unless fitted with an automatic drain. Keep the filter clean by regular maintenance.

**Regulator** .... The regulator controls the operating pressure for safe operation of the Nailer. Inspect the regulator before operation to be sure it operates properly.

**Lubricator** .... The lubricator supplies an oil mist to the Nailer. Inspect the lubricator before operation to be sure the supply of lubricant is adequate. Use Hitachi pneumatic tool lubricant.

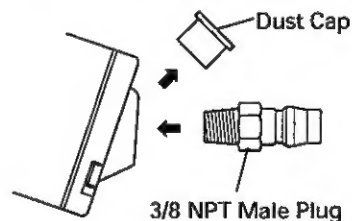


### 3. Air hose

Air hose must have a minimum working pressure rating of 150 psi (10.4 bar 10.6 kgf/cm<sup>2</sup>) or 150% of the maximum pressure produced in the system, whichever is higher.

### 4. Hose coupling

- The Nailer can be installed as follows: Remove the dust seal placed at the air inlet. Install a 3/8 NPT male plug at the air inlet.



- A female coupler must be on the air hose. The hose coupling (male plug-female coupler) must remove all pressure from the Nailer when disconnected. Never use a non relieving coupler on the Nailer.

## 5. Air consumption

Using the Air consumption table and the Air compressor size formula, find a correct compressor size.

Air consumption table

|                    |                                        |                      |                      |                     |
|--------------------|----------------------------------------|----------------------|----------------------|---------------------|
| Operating pressure | psi<br>(bar)<br>(kgf/cm <sup>2</sup> ) | 80<br>(5.5)<br>(5.6) | 90<br>(6.2)<br>(6.3) | 100<br>(6.9)<br>(7) |
| Air consumption    | ft <sup>3</sup> /cycle<br>(ltr/cycle)  | .062<br>(1.7)        | .075<br>(2.1)        | .088<br>(2.5)       |

### Air compressor size formula

Amount of air required

=number of Nailers

× average nails driven each minute per Nailer

× air consumption at given air pressure

× safety factor (always 1.2)

Example: 2 Nailers operating at 100 psi driving 30 nails per minute

Amount of air required

=2 × 30 × .088 (2.5) × 1.2

=6.3 CFM (ft<sup>3</sup>/min) (180 ltr/min)

After making the calculations as shown above, you should find a compressor providing 6.3 CFM of air that is required.

## LUBRICATION

It is important that the Nailer be properly lubricated. Without proper lubrication, the Nailer will not work properly and parts will wear prematurely.

- Use Hitachi pneumatic tool lubricant.  
Do not use detergent oil or additives. These lubricants will harm the O-rings and other rubber parts. This will cause the Nailer to malfunction.
- Filter-regulator-lubricator units should always be used. Keep the lubricator filled with Hitachi pneumatic tool lubricant.
- If a lubricator is not available, supply 5 – 10 drops of Hitachi pneumatic tool lubricant into the air plug on the Nailer twice a day.

## COLD WEATHER CARE

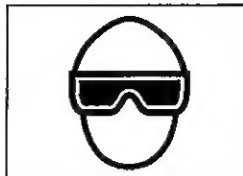
- Do not store the Nailer in a cold weather environment. Keep the Nailer in a warm area until beginning the work.
- If the Nailer is already cold, bring it in a warm area and allow the Nailer to warm up before use.
  - ① Reduce the air pressure to 64 psi (4.4 bar 4.5 kgf/cm<sup>2</sup>).
  - ② Remove all nails from the Nailer.
  - ③ Connect the air hose and free-fire (blank-fire) the Nailer.  
The lowered air pressure will be enough to free-fire the Nailer.  
Slow speed operation tends to warm up the moving part.

## ⚠ CAUTION

- Do not free-fire the Nailer at high pressure.

## TESTING THE NAILER

### ⚠ DANGER



- Operators and others in work area **MUST** wear safety glasses with side shields which conforms to ANSI Z87.1 specifications.

### ⚠ WARNING

- **Never use Nailer unless push lever is operating properly.**

Before actually beginning the nailing work, test the Nailer by using the checklist below. Conduct the tests in the following order.

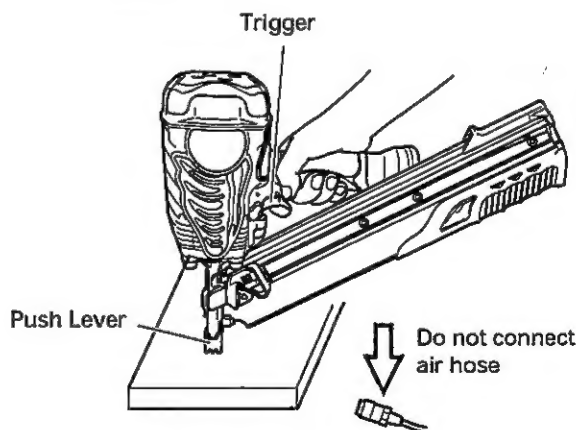
If abnormal operation occurs, stop using the Nailer and contact a Hitachi authorized service center immediately.

- (1) DISCONNECT AIR HOSE FROM NAILER.  
REMOVE ALL NAILS FROM NAILER.

- ☐ ALL SCREWS MUST BE TIGHTENED.  
If any screws are loose, tighten them.

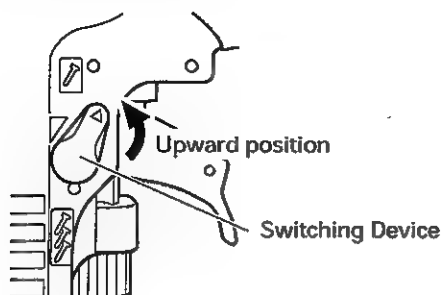


- ☐ THE PUSH LEVER AND TRIGGER MUST MOVE SMOOTHLY.



- (2) Adjust the air pressure to 70 psi (4.9 bars 5 kgf/cm<sup>2</sup>). Connect the air hose.  
Do not load any nails in the Nailer.  
Set the switching device to the upward position (SINGLE ACTUATION MECHANISM).

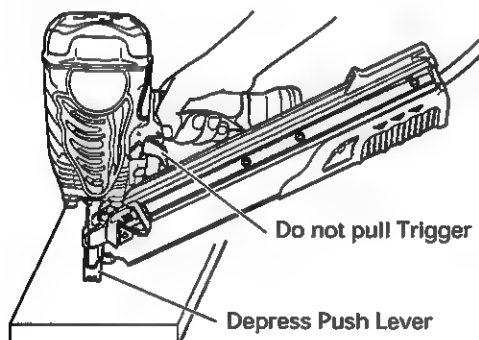
(Set the switching device to the upward position completely as shown in the diagram. Otherwise, it will not operate properly.)



☐ THE NAILER MUST NOT LEAK AIR.

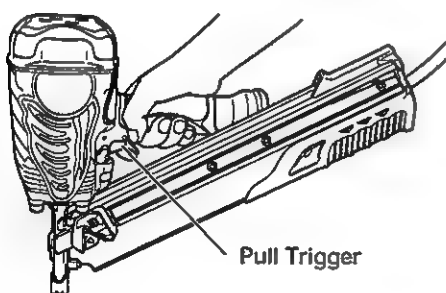
- (3) Remove the finger from the trigger and press the push lever against the workpiece.

☐ THE NAILER MUST NOT OPERATE.



- (4) Separate the push lever from the workpiece. Next, point the nailer downward, pull the trigger and then wait in that position for 5 seconds or longer.

☐ THE NAILER MUST NOT OPERATE.



- (5) ① Without touching the trigger, depress the push lever against the workpiece. Pull the trigger.

☐ THE NAILER MUST OPERATE.

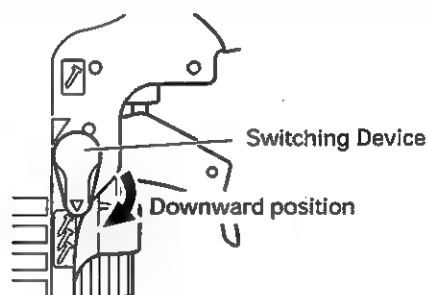
- ② Hold the trigger back while separating the push lever from the workpiece.

☐ The nailer will remain in operated status (the driver blade will remain at the bottom).

- ③ Remove the finger from the trigger.

☐ Nailer operation will end (the driver blade will return to the top).

- (6) Set the switching device to the downward position (CONTACT ACTUATION MECHANISM). (Set the switching device to the downward position completely as shown in the diagram. Otherwise, it will not operate properly.)



With the Nailer off the workpiece, pull the trigger. Depress the push lever against the workpiece.

☐ THE NAILER MUST OPERATE.

- (7) If no abnormal operation is observed, you may load nails in the Nailer. Drive nails into the workpiece that is the same type to be used in the actual application.

☐ THE NAILER MUST OPERATE PROPERLY.

## ADJUSTING AIR PRESSURE

### ⚠ WARNING



- Do not exceed 120 psi (8.3 bars 8.5 kgf/cm<sup>2</sup>).

Adjust the air pressure at recommended operating pressure 70 – 120 psi (4.9 – 8.3 bar 5 – 8.5 kgf/cm<sup>2</sup>) according to the length of nails and the hardness of workpiece.

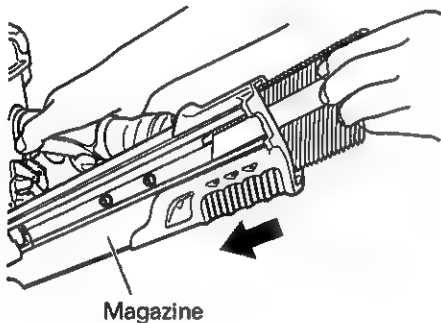
The correct air pressure is the lowest pressure which will do the job. Using the Nailer at a higher than required air pressure unnecessarily over stresses the Nailer.

## LOADING NAILS

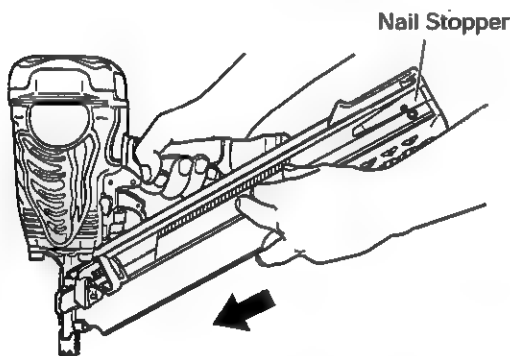
### ⚠ WARNING

- When loading nails into Nailer,
  - 1) do not depress trigger;
  - 2) do not depress push lever; and
  - 3) keep Nailer pointed downward.

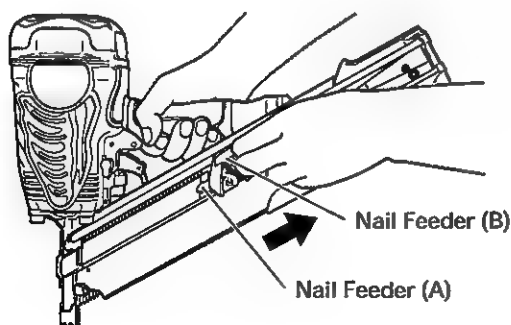
(1) Insert nail strip into the back of the magazine.



(2) Slide the nail strip forward in the magazine.  
The nail strip should pass the nail stopper.



(3) Pull the nail feeder (B) back to engage the nail feeder (A) to the nail strip.



### NOTE:

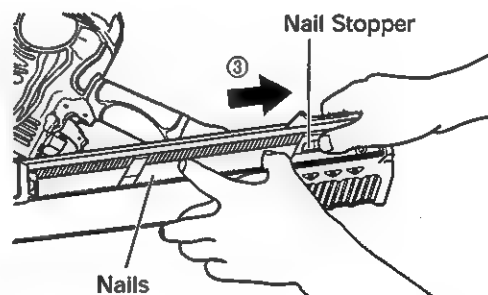
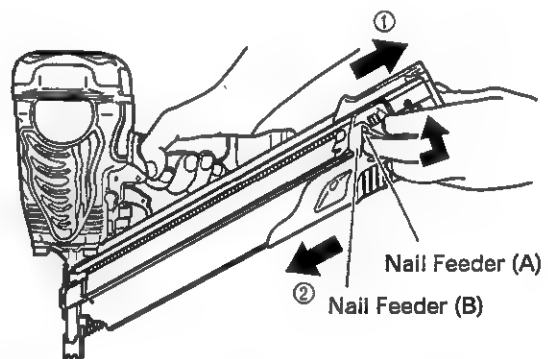
- Quietly push the Nail Feeders (A) and (B) against the nail. If the Nail Feeders (A) and (B) are released from backward the magazine and bumped against the nail, the connecting paper of the nail can be damaged.
- Use nail strip of more than 5 nails.



The Nailer is now ready to operate.

### Removing the nails:

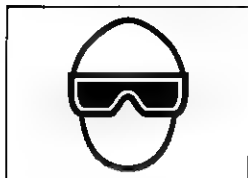
- ① Pull the nail feeder (B) backward.
- ② Return the nail feeder (B) forward quietly while pushing the nail feeder (A).
- ③ Push the nail stopper toward the magazine side, and pull out nails from the back of the magazine.



## NAILER OPERATION

Read section titled "SAFETY" (pages 4 – 6).

### ⚠ DANGER



- Operators and others in work area **MUST** wear safety glasses with side shields which conforms to ANSI Z87.1 specifications.

### ⚠ WARNING



- NEVER point tool at yourself or others in work area.
- Keep fingers **AWAY** from trigger when not driving nails to avoid accidental firing.
- Choice of triggering method is important. Please read and understand "Methods of Operation" below.
- Before starting work, check the nailing operation switching device.  
This Hitachi nailer includes a nailing operation switching device.  
Before starting work, make sure that the switching device is properly set.  
If the switching device is not set properly, the nailer will not operate correctly.
- Never place your hands or feet closer than 8 inches (200 mm) from firing head when using.
- Do not drive nails on the top of other nails or with Nailer at too steep of an angle; nails can ricochet and hurt someone.
- Do not drive nails into thin boards or near corners and edges of workpiece. Nails can be driven through or away from workpiece and hit someone.
- Never drive nails from both sides of a wall at the same time. Nails can be driven into and through the wall and hit a person on the opposite side.
- Never use Nailer which is defective or operating abnormally.
- Do not use Nailer as hammer.
- Disconnect air hose from Nailer when:
  - 1) it is not in use;
  - 2) leaving work area;
  - 3) moving it to another location; and
  - 4) handing it to another person.

This Hitachi nailer is equipped with a nailer operation switching device.

Use **SINGLE ACTUATION MECHANISM** or **CONTACT ACTUATION MECHANISM** in accordance with the work to be performed.

Explanation of the various nailing operations

- **SINGLE ACTUATION MECHANISM (SINGLE SEQUENTIAL ACTUATION MECHANISM):** First, press the push lever against the workpiece; next, pull the trigger to drive the nail.  
First, pull the trigger; next, press the push lever against the workpiece to drive the nail.  
After nailing once, nailing will not be possible again until the trigger is released and pressed again.
- **CONTACT ACTUATION MECHANISM:** First, press the push lever against the workpiece; next, pull the trigger to drive the nail.  
First, pull the trigger; next, press the push lever against the workpiece to drive the nail.  
If the trigger is held back, a nail will be driven each time the push lever is pressed against the workpiece.

## METHODS OF OPERATION

This Nailer is equipped with the push lever and does not operate unless the push lever is depressed (upward position).

There are two methods of operation to drive nails with this Nailer.

They are:

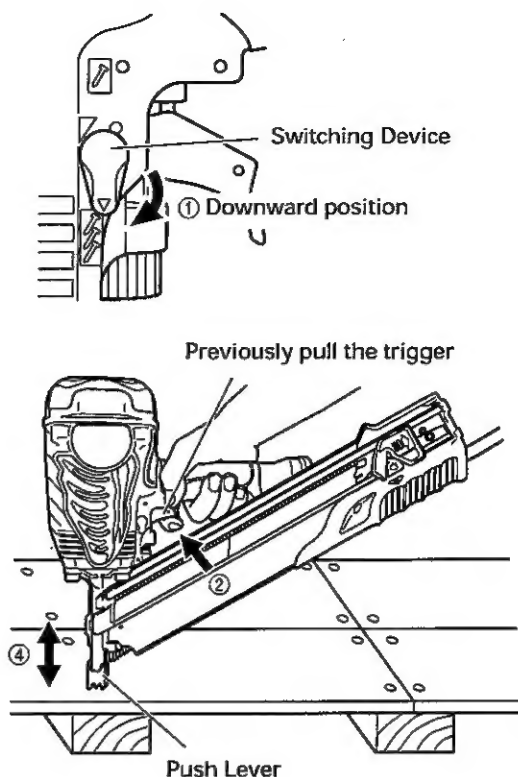
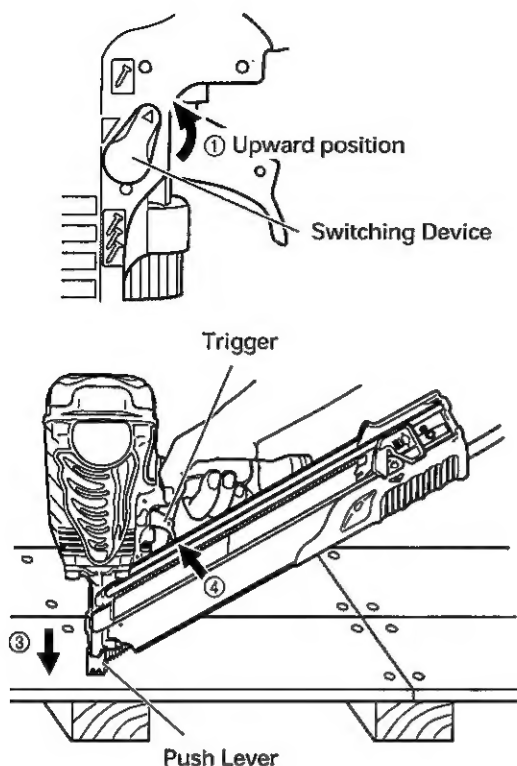
1. Intermittent operation (Trigger fire);
  2. Continuous operation (Push lever fire);
- (1) Intermittent operation (Trigger fire)  
Use the **SINGLE ACTUATION MECHANISM** setting.

### ⚠ WARNING

- For intermittent operation, set the switching device to the upward position completely. (i.e. Set to **SINGLE ACTUATION MECHANISM**.)
- To avoid double firing or accidental firing due to recoil.
  - 1) Set the switching device to **SINGLE ACTUATION MECHANISM**.
  - 2) Pull the trigger rapidly and firmly.

- ① Set the switching device to the upward position (to set to **SINGLE ACTUATION MECHANISM**).  
(Set the switching device to the upward position completely as shown in the diagram. Otherwise, it will be set to **CONTACT ACTUATION MECHANISM**.)
- ② Position the nail outlet on the workpiece with finger off the trigger.
- ③ Depress the push lever firmly until it is completely depressed.
- ④ Pull the trigger to drive a nail.
- ⑤ Remove finger from the trigger.

To continue nailing in a separate location, move the nailer along the wood, repeating steps ② - ⑤ as required.



- (2) Continuous operation (Push lever fire)  
Using CONTACT ACTUATION MECHANISM

### ⚠ WARNING

- To avoid double firing or accidental firing due to recoil.
    - 1) Do not press the nailer against the wood with excessive force.
    - 2) Separate the nailer from the wood as it recoils after nailing.
  - ① Set the switching device to the downward position (to set to CONTACT ACTUATION MECHANISM). (Set the switching device to the downward position completely as shown in the diagram. Otherwise, it will not operate properly.)
  - ② Pull the trigger with the Nailer off the workpiece.
  - ③ Depress the push lever against the workpiece to drive a nail.
  - ④ Move the Nailer along the workpiece with a bouncing motion.
- Each depression of the push lever will drive a nail.  
As soon as the desired number of nails have been driven, remove finger from the trigger.

### ⚠ WARNING

- Keep your finger off the trigger except during fastening operation, because serious injury could result if the push lever accidentally contacts you or others in work area.
- Keep hands and body away from the discharge area. This Hitachi nailer may bounce from the recoil of driving a fastener and unwanted subsequent fastener may be driven, possibly causing injury.
- Some types of loaded nails can spark out of the muzzle during a nail driving operation. Exercise caution!

#### NOTE:

- If all warnings and instructions are followed, safe operation is possible with all two systems: SINGLE ACTUATION MECHANISM and CONTACT ACTUATION MECHANISM.
- Always handle nails and package carefully. If nails are dropped, collating plastic may be broken.
- After nailing:
  - 1) disconnect air hose from the Nailer;
  - 2) remove all nails from the Nailer;
  - 3) supply 5 – 10 drops of Hitachi pneumatic tool lubricant into the air plug on the Nailer; and
  - 4) open the petcock on the air compressor tank to drain any moisture.



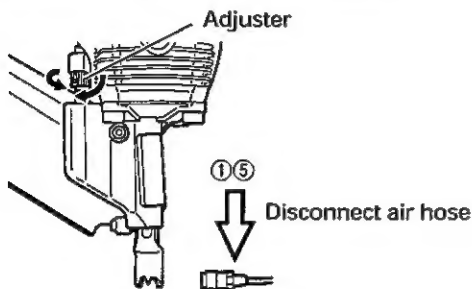
## ADJUSTING THE NAILING DEPTH

To assure that each nail penetrates to the same depth, be sure that:

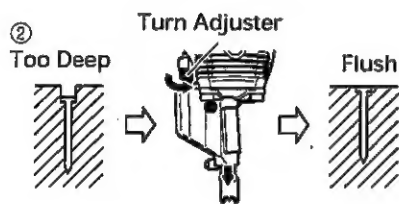
- 1) the air pressure to the Nailer remains constant (regulator is installed and working properly), and
- 2) the Nailer is always held firmly against the workpiece.

If nails are driven too deep or shallow into the workpiece, adjust the nailing in the following order.

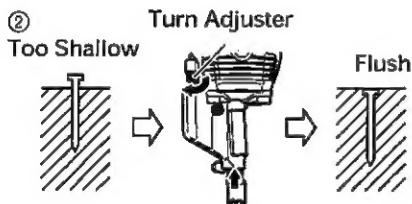
- ① DISCONNECT AIR HOSE FROM NAILER.



- ② If nails are driven too deep, turn the adjuster to the shallow side.



If nails are driven too shallow, turn the adjuster to the deep side.



- ③ Stop turning the adjuster when a suitable position is reached for a nailing test.
- ④ Connect the air hose.  
ALWAYS WEAR EYE PROTECTOR.  
Perform a nailing test.
- ⑤ DISCONNECT AIR HOSE FROM NAILER.
- ⑥ Choose a suitable position for the adjuster.

# MAINTENANCE

## NOTE:

The information contained in this Manual is designed to assist you in the safe maintenance of the Nailer.

Some illustrations in this Manual may show details or attachments that differ from those on your own Nailer.

## MAINTENANCE AND INSPECTION

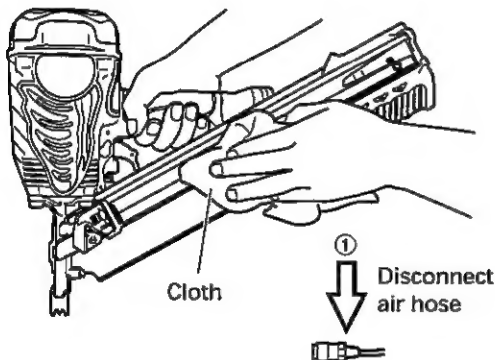
Read section titled "SAFETY" (pages 4 – 6).

### ⚠ WARNING

- Disconnect air hose and remove all nails from Nailer when:
  - 1) doing maintenance and inspection; and
  - 2) clearing a jam.

#### 1. Inspecting the magazine

- ① DISCONNECT AIR HOSE.
- ② Clean the magazine. Remove paper chips or wooden chips which may have accumulated in the magazine. Lubricate it with Hitachi pneumatic tool lubricant.



### ⚠ CAUTION

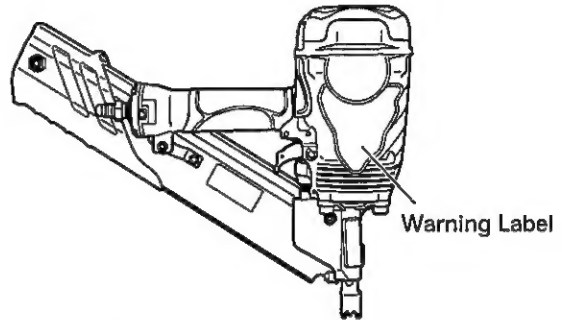
- Check that the nail feeder slides smoothly by pulling it with finger.  
If not smooth, nails can be driven at an irregular angle and hurt someone.

#### 2. Storing

- When not in use for an extended period, apply a thin coat of the lubricant to the steel parts to avoid rust.
- Do not store the Nailer in a cold weather environment. Keep the Nailer in a warm area.
- When not in use, the Nailer should be stored in a warm and dry place. Keep out of reach children.

#### 3. WARNING LABEL

Change the WARNING LABEL if missing or damaged. A new WARNING LABEL is available from a Hitachi authorized service center.



#### 4. Maintenance chart (See page 17)

#### 5. Operator troubleshooting (See page 17)

#### 6. Service parts list

- A: Item No.
- B: Code No.
- C: No. Used
- D: Remarks

### ⚠ CAUTION

- Repair, modification and inspection of Hitachi Power Tools must be carried out by an Hitachi Authorized Service Center.  
This Parts List will be helpful if presented with the tool to the Hitachi Authorized Service Center when requesting repair or other maintenance. In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

#### MODIFICATIONS:

Hitachi Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

Accordingly, some parts (i.e. code numbers and/or design) may be changed without prior notice.

## SERVICE AND REPAIRS

### ⚠ WARNING

- Only service personnel trained by Hitachi, distributor or employer shall repair the Nailer.
- Use only parts supplied or recommended by Hitachi for repair.

All quality Nailers will eventually require servicing or replacement of parts because of wear from normal use.

## NOTE:

Specifications are subject to change without any obligation on the part of HITACHI.

## Maintenance chart

| ACTION                                                                                    | WHY                                                     | HOW                                               |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------|
| Drain air line filter daily.                                                              | Prevent accumulation of moisture and dirt.              | Open manual petcock.                              |
| Keep lubricator filled.                                                                   | Keep the Nailer lubricated.                             | Fill with Hitachi pneumatic tool lubricant.       |
| Clean filter element — then blow air through filter in direction opposite to normal flow. | Prevent clogging of filter with dirt.                   | Follow manufacturer's instructions.               |
| Clean magazine and feeder mechanism.                                                      | Prevent a jam.                                          | Blow clean daily.                                 |
| Keep push lever working properly.                                                         | Promote operator safety and efficient Nailer operation. | Blow clean daily.                                 |
| Lubricate the Nailer after nailing.                                                       | Extend the Nailer life.                                 | Supply 5 – 10 drops of lubricant into the Nailer. |
| Drain air compressor.                                                                     | Keep the Nailer operated properly.                      | Open petcock on air compressor tank.              |

## Operator troubleshooting

Most minor problems can be resolved quickly and easily using the table below.

If problems persist, contact a Hitachi authorized service center for assistance.

| PROBLEM                                                                                     | CHECK METHOD                               | CORRECTION                                                                          |
|---------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------|
| Nailer operates, but no nail is driven.                                                     | Check for a jam.                           | Clear a jam.                                                                        |
|                                                                                             | Check function of nail feeder per page 16. | Clean and lubricate.                                                                |
|                                                                                             | Ribbon spring weakened or damaged?         | Replace ribbon spring.                                                              |
|                                                                                             | Check for proper nails.                    | Use only recommended nails.                                                         |
| Weak drive.<br>Slow to cycle.                                                               | Check air pressure.                        | Increase air pressure. (Do not exceed 120 psi (8.3 bars, 8.5 kgf/cm <sup>2</sup> )) |
|                                                                                             | —————                                      | Use Hitachi pneumatic tool lubricant.                                               |
|                                                                                             | Driver blade worn?                         | Contact Hitachi for replacement.                                                    |
|                                                                                             | Piston O – ring worn or damaged?           |                                                                                     |
| Drives too deep.                                                                            | Check air pressure.                        | Reduce air pressure.<br>(Adjust 70 – 120 psi)                                       |
| Skipping nails. Intermittent feed.                                                          | Check for proper nails.                    | Use only recommended nails.                                                         |
|                                                                                             | Check function of nail feeder per page 16. | Clean and lubricate.                                                                |
|                                                                                             | Ribbon spring weakened or damaged?         | Replace ribbon spring.                                                              |
|                                                                                             | —————                                      | Use Hitachi pneumatic tool lubricant.                                               |
|                                                                                             | Piston O – ring cut or heavily worn?       | Contact Hitachi for replacement.                                                    |
|                                                                                             | Nail feeder (A) worn or damaged?           | Replace nail feeder (A).                                                            |
| Nails jam.<br>Driven nail is bent.                                                          | Check for proper nails.                    | Use only recommended nails.                                                         |
|                                                                                             | Driver blade worn?                         | Contact Hitachi for replacement.                                                    |
|                                                                                             | Nail feeder (A) worn or damaged?           | Replace nail feeder (A).                                                            |
| Drives properly during normal operation, but does not drive fully at faster nailing speeds. | Check inside diameter of air hose.         | Use larger air hose.                                                                |